NEUROSCIENCE

An International Journal under the editorial direction of IBRO

Volume 19, 1986

SUBJECT INDEX

Compiled by F. Cribbin

PERGAMON PRESS OXFORD · NEW YORK

BEIJING · FRANKFURT · SÃO PAULO · SYDNEY · TOKYO · TORONTO

NEUROSCIENCE

Chief Editors

P. G. KOSTYUK: *Department of General Physiology, A. A. Bogomoletz Institute of Physiology, Academy of Sciences, Ukrainian SSR, 4 Bogomoletz Street, Kiev 24, 252601 GSP, U.S.S.R.*

R. LLINÁS: *Department of Physiology and Biophysics, New York University School of Medicine, 550 First Avenue, New York 10016, U.S.A.*

A. D. SMITH: *Department of Pharmacology, University of Oxford, South Parks Road, Oxford OX1 3QT, U.K.*

Editorial Board

R. G. BAKER (*New York*)
P. BANKS (*Sheffield*)
K. J. BERKLEY (*Tallahassee, FL*)
D. BIESOLD (*Leipzig*)
A. BJÖRKLUND (*Lund*)
P. BRODAL (*Oslo*)
A. G. BROWN (*Edinburgh*)
G. TEN BRUGGENCATE (*Munich*)
J. BUREŠ (*Prague*)
R. E. BURKE (*Bethesda, MD*)
A. L. BYSOV (*Moscow*)
I. W. CHUBB (*Wollongong*)
F. CLEMENTI (*Milan*)
B. COLLIER (*Montreal*)
M. COSTA (*Adelaide*)
A. C. CUELLO (*Montreal*)
W. J. DAVIS (*Santa Cruz*)
I. M. L. DONALDSON (*Hull*)
D. EDGAR (*Munich*)
C. EDWARDS (*Bethesda, MD*)
D. S. FABER (*Buffalo, NY*)
D. M. FAMBROUGH (*Baltimore*)
V. V. FANARDJIAN (*Yerevan*)
G. GABELLA (*London*)
W. F. GANONG (*San Francisco*)
H. M. GERSCHENFELD (*Paris*)
A. M. GRAYBIEL (*Cambridge, MA*)
R. W. GUILLERY (*Oxford*)
G. HAEUSLER (*Darmstadt*)
J. HÁMORI (*Budapest*)
L. HEIMER (*Charlottesville*)
M. HERKENHAM (*Bethesda*)
D. E. HILLMAN (*New York*)
T. HÖKFELT (*Stockholm*)
E. HOLTZMAN (*New York*)
O. HORNYKIEWICZ (*Vienna*)
J. HOUNSGAARD (*Copenhagen*)
S. P. HUNT (*Cambridge*)
M. ITO (*Tokyo*)
G. JAIM-ETCHEVERRY (*Buenos Aires*)
J. S. KELLY (*Edinburgh*)
B. I. KHODOROV (*Moscow*)
G. W. KREUTZBERG (*Munich*)
K. KRNJEVIĆ (*Montreal*)
H. G. J. M. KUYPERS (*Cambridge*)
L. LUBINSKA (*Warsaw*)
L. MAFFEI (*Pisa*)
C. A. MARSDEN (*Nottingham*)
M. R. MATTHEWS (*Oxford*)
P. B. C. MATTHEWS (*Oxford*)
A. I. MATUS (*Basel*)
R. E. MCCAMAN (*Duarte, CA*)
D. K. MOREST (*Farmington, CT*)
I. G. MORGAN (*Canberra*)
J. F. MORRIS (*Oxford*)
É. MUGNAINI (*Storrs*)
W. J. H. NAUTA (*Cambridge, MA*)
F. ORREGO (*Santiago, Chile*)
M. OTSUKA (*Tokyo*)
J. M. PALACIOS (*Basle*)
S. L. PALAY (*Boston*)
R. E. PASSINGHAM (*Oxford*)
V. H. PERRY (*Oxford*)
J. M. POLAK (*London*)
P. RAKIC (*New Haven*)
H. J. RALSTON (*San Francisco*)
T. S. REESE (*Woods Hole*)
F. REINOSO-SUÁREZ (*Madrid*)
M. RÉTHELYI (*Budapest*)
P. N. RUDOMIN (*Mexico City*)
M. L. SHELANSKI (*New York*)
S. M. SHERMAN (*Stony Brook, NY*)
M. L. SHIK (*Moscow*)
M. V. SOFRONIEW (*Cambridge*)
P. SOMOGYI (*Oxford*)
C. SOTELO (*Paris*)
K. STARKE (*Freiburg*)
C. F. STEVENS (*New Haven*)
L. STJÄRNE (*Stockholm*)
C. STUMPF (*Vienna*)
K. SUZUKI (*Chapel Hill*)
R. F. THOMPSON (*Irvine, CA*)
D. A. VASILENKO (*Kiev*)
E. S. VIZI (*Budapest*)
J. VOOGD (*Leiden*)
L. VYKLICKY (*Prague*)
K. E. WEBSTER (*London*)
R. WERMAN (*Jerusalem*)
W. D. WILLIS (*Galveston*)
H. WINKLER (*Innsbruck*)
L. R. YOUNG (*Cambridge, MA*)
S. ZEKI (*London*)
H. ZIMMERMAN (*Frankfurt*)

IBRO Publications Committee

Chairman, A. D. SMITH; M. ITO, E. R. KANDEL, P. G. KOSTYUK, K. KRNJEVIĆ, R. LLINÁS, D. RICHTER.

Aims and Scope:

Neuroscience publishes papers describing the results of original research on any aspect of the scientific study of the nervous system. Since one of the chief aims of the journal is to promote communication between neuroscientists, the type of paper most suitable for publication is that in which new observations are clearly and succinctly reported and in which the purpose of the study is made meaningful to scientists of other disciplines. Any paper, however short, will be considered for publication provided that it reports significant, new and carefully confirmed findings with full experimental details. For *Instructions to Authors* see Vol. 19, No. 4, pp. V–VIII.

Production Controller: R. L. WATSON. *Editorial Assistant:* S. J. RUSSELL.

Publishing, Subscription and Advertising Offices: Headington Hill Hall, Oxford OX3 0BW (Oxford 64881). Published monthly (three volumes per annum). 1986 Subscription (including postage and insurance): to libraries, research establishments and all other multiple reader institutions DM 2700; 2 year rate DM 5130; members of the International Brain Research Organization may order personal subscriptions at a concessional rate and details of these rates are available on request. Airmail Subscription extra. Subscription enquiries from customers in North America should be sent to: Pergamon Journals Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, U.S.A., and for the remainder of the world to: Pergamon Journals Ltd, Headington Hill Hall, Oxford OX3 0BW, U.K.

Specially reduced rates to individuals: In the interests of maximizing the dissemination of the research results published in this important international journal we have established a two-tier price structure. Any individual whose institution takes out a library subscription, may purchase a second or additional subscription for their personal use at the much reduced rate of DM 271 per annum. Prices are subject to change without notice.

Back issues of all previously published volumes are available in the regular editions and on microfilm and microfiche. Current subscriptions are available on microfiche simultaneously with the paper edition and on microfilm on completion of the annual index at the end of the subscription year.

Copyright © 1986 IBRO

For Copyright details, see Inside Back Cover

Front cover illustration: Section of a nerve in the spinal cord of the ox, reproduced by permission of the Bodleian Library, Oxford from Antoni van Leeuwenhoek. *Epistolae physiologicae super compluribus naturae arcanis*, figure 2 facing page 312. A. Beman, Delft, 1719.

PERGAMON JOURNALS LTD
HEADINGTON HILL HALL, OXFORD OX3 0BW
MAXWELL HOUSE, FAIRVIEW PARK, ELMSFORD, NY 10523, U.S.A.

VOLUME 19—SUBJECT INDEX

Note: For brain nuclei see relevant area, e.g. Hypothalamus, or under name of nucleus (e.g. Accumbens nucleus).
*Commentary.

Abbreviations used:

AChE	Acetylcholinesterase	5-HT	5-Hydroxytryptamine
CGRP	Calcitonin gene-related peptide	LHRH	Luteinizing hormone-releasing hormone
ChAT	Choline acetyltransferase	NADPH	Nicotinamide-adenine dinucleotide phosphate, reduced
CNS	Central nervous system	NGF	Nerve growth factor
EPSP	Excitatory postsynaptic potential	NPY	Neuropeptide Y
GABA	gamma-Aminobutyrate	VIP	Vasoactive intestinal polypeptide
GAD	Glutamate decarboxylase		
HRP	Horseradish peroxidase		

Accumbens nucleus,
  effect of electrical stimulation of the parafascicular nucleus on dopamine utilization in rat 19:965
  effect of ibotenic acid injection of the parafascicular-intralaminar nuclei on dopamine utilization in rat 19:979
  localization of CGRP binding sites in rat 19:1235
  localization of M1 muscarinic receptors in rat 19:551
  localization of non-A1 adenosine binding sites in rat 19:535
  localization of SKF 38393 binding sites in rat CNS 19:125
  medial; projecting neurons from the hippocampus receive input from cholecystokinin-immunoreactive boutons, in rat 19:181
  & mesolimbic loop of antinociception in rabbit 19:403

Acetylcholine,
  acts on muscarinic receptors to stimulate catecholamine secretion from the chicken adrenal medulla 19:357
  effect on GABA release in rat striatum 19:1101
  effect on phosphorylation & dephosphorylation of bovine chromaffin cell proteins 19:629
  levels in rat dorsal hippocampus; effect of ethylcholine mustard aziridinium ion 19:1197
  nicotinic action on rat locus coeruleus neurons in vitro 19:565
  release; & increase in the number of presynaptic large intramembrane particles at the Torpedo nerve-electroplaque junction 19:63

Acetylcholine receptors,
  muscarinic,
    M1 & M2; localization in the rat brain 19:551
    role in catecholamine secretion in the chicken adrenal gland 19:357
  nicotinic,
    on rat locus coeruleus neurons 19:565

Acetylcholinesterase,
  changes in levels in medial septum & diagonal band after fimbria-fornix transection in rat 19:241
  colocalization with GABA in rat cortical neurons 19:763
  hydrolyses bovine chromogranin A to yield low molecular weight peptides 19:289
  lattice in superior colliculus; spatial relationship with NADPH-diaphorase lattice in rat & mouse 19:381
  localization in terminal nerve neurons of hamster 19:719

Action potentials,
  characteristics in spinal motoneurons of neonatal rats 19:669
  effects of noradrenaline & clonidine in myenteric neurons in guinea-pig 19:1303

Adenosine receptors,
  distribution of A1 & non-A1 binding sites in the rat CNS 19:535

Adrenal gland,
  characterization & distribution of NPY in several mammalian species 19:1011
  effect of insulin & reserpine on the content of NPY in rat 19:1011
  effect of reserpine on the content of [Met]enkephalin in rat 19:1011
  medulla,
    muscarinic activation of catecholamine secretion in chicken 19:357

Adrenergic neurons,
  PC12 cells have a closer resemblance than bovine chromaffin cells to adrenergic neurons with respect to monoamine oxidase activity & tyramine-induced catecholamine release 19:1311

Afterdepolarizations,
  characteristics in spinal motoneurons of neonatal rats 19:669

Afterhyperpolarizations,
  characteristics in spinal motoneurons of neonatal rats 19:669

Algorithm,
for the generation of curvilinear wrist motion in an arbitrary plane in three-dimensional space 19:1393

Allogeneic grafts,
fate of neuronal tissue transplanted to the third ventricle of rodents 19:685

Alzheimer's disease,
basal nucleus neuronal loss, neuritic plaques & ChAT activity in advanced severe cases 19:1279
cholinergic function & intellectual decline 19:1*
dendritic changes in the basal & diagonal band nuclei 19:1265
& hypothalamic-mediated endorphinergic mechanisms 19:667

gamma-Aminobutyrate,
-accumulating neurons in supragranular layers of cat primary auditory cortex 19:771
applied to thalamic motor nuclei; effect on dopamine release in the substantia nigra & caudate nucleus in cat 19:1067, 19:1091
applied to thalamic motor nuclei; effect on firing rate of dopamine cells in the substantia nigra in cat 19:1067
colocalization with AChE in rat cortical neurons 19:763
effect on activity of cells in thalamic motor nuclei in cat 19:1067
-immunoreactive clutch cells terminate on spiny stellate cells in layer IVC of monkey striate cortex 19:741
-immunoreactive neurons synapse with oxytocin & vasopressin neurons in rat supraoptic nucleus 19:207
immunoreactivity; & neuronal composition of rat dorsal lateral geniculate nucleus 19:101
localization in synaptic terminals of basket & clutch cells in cat visual cortex 19:1051
ontogeny of appearance in the rat brain 19:465
release in rat striatum; characterization & topographical heterogeneity 19:1101
release in rat striatum; opposing effects of D1 & D2 dopamine receptor stimulation 19:1109

gamma-Aminobutyrate agonists,
effects on local cerebral glucose use in rat 19:257

gamma-Aminobutyrate antagonists,
evoke epileptiform discharges; comparison with those evoked in the absence of Mg^{2+} in rat neocortical slices 19:1161

4-Aminopyridine,
effect on nerve-electroplaque transmission in Torpedo 19:63

Amphiphilic form of ChAT,
in cholinergic nerve endings of Torpedo & rat 19:275

Amygdala,
lateral,
effect of diazepam on glucose utilization in rat 19:257
localization of M1 muscarinic receptors in rat 19:551
localization of non-A1 adenosine binding sites in rat 19:535
localization of SKF 38393 binding sites in rat CNS 19:125
medial,
localization of kappa opioid receptors labelled by bremazocine in rat 19:839
projection to thermoresponsive neurons in the ventral septal area in rat 19:795

Amygdaloid nuclei,
basolateral,
effect of electrical stimulation on the subicular & entorhinal cortices in rat 19:573
lateral,
effect of electrical stimulation on the subicular & entorhinal cortices in rat 19:573
localization of CGRP binding sites in rat 19:1235

Antinociception,
effect of morphine on spinothalamic tract cells & other dorsal horn neurons in rat 19:393
mesolimbic loop; interaction between 5-HT & enkephalin in the rabbit nucleus accumbens 19:403

Antipsychotic drugs,
effect on reticular elicitation of hippocampal slow waves in rat 19:899

Anxiolytic drugs,
effect on reticular elicitation of hippocampal slow waves in rat 19:899

Astrocytes,
& Ca^{2+}-activated K^{+} channels in rat brain in culture 19:29

Auditory cortex,
primary; distribution of GABA-accumulating neurons in supragranular layers in cat 19:771

Autonomic nerve terminals,
localization & characterization of substance P in bullfrog cardiac ganglion 19:343

Avoidance or escape movements,
produced by stimulation of the superior colliculus; effects of section of the crossed tectoreticulospinal pathway in rat 19:367

Axo-axonic cells,
synaptic connections in human epileptic temporal cortex 19:1179

Axon maturation,
embryonic axon forms & expression of synapsin I in mouse cerebellum 19:1319

Axonal transport,
of dopamine & opioid receptors in the striatonigral & nigrostriatal pathways of rat 19:139

Axoplasmic organelles,
distribution at consecutive nodes of Ranvier in HRP-transporting muscle nerve fibres of cat 19:1349

Barbiturates,
effect on reticular elicitation of hippocampal slow waves in rat 19:899

Basal ganglia,
interactions with the pontine parabrachial region & the trigeminal system in cat 19:411

Basal nucleus,
behavioural effects of lesions 19:1*
cholinergic cell loss in advanced Alzheimer's disease 19:1279
dendritic changes in Alzheimer's disease 19:1265

Basket cells,
localization of GABA in synapses, in cat visual cortex 19:1051

Behaviour,
effects of cholinergic drugs & lesions of cholinergic pathways 19:1*

Benzodiazepines,
effect on reticular elicitation of hippocampal slow waves in rat 19:899

Bicuculline,
effect on the change in dopamine release evoked by glutamate in the cat caudate nucleus 19:1081

Black widow spider venom,
effects of toxins on neurotransmitter release from rat & locust synaptosomes 19:55

Bremazocine,
labelling of kappa opioid receptors in rat brain 19:839

Calcitonin gene-related peptide,
binding sites,
localization in rat brain 19:1235
occurrence, distribution & ontogeny in the rat respiratory tract 19:605

Calcium,
effect of ionic composition of the superfusion medium on GABA release in the rat striatum 19:1101
effect on K^+ channels in cultured astrocytes from rat brain 19:29
effect of a low extracellular concentration on stimulation-induced phosphorylation of bovine chromaffin cell proteins 19:629
influx; is enhanced by a phorbol ester in cultured rat brain neurons 19:1255
role in firing properties of rat neonatal spinal motoneurons 19:669

Calcium action potentials,
frequency-dependent decay in cultured mouse spinal cord neurons 19:1335

Capsaicin,
effect on distribution of CGRP immunoreactivity in the rat respiratory tract 19:605
evokes release of tachykinins from guinea-pig spinal cord & ureter 19:313

Cardiac ganglion,
localization & characterization of substance P in parasympathetic preganglionic nerve terminals in bullfrog 19:343

Carotid body,
characteristics of innervation in cat 19:581

Carotid nerve,
terminal arborizations of axons in the carotid body of cat 19:581

Catecholamines,
muscarinic activation of secretion in chicken adrenal gland 19:357

Caudate nucleus,
effect of GABA application to thalamic motor nuclei on dopamine release in cat 19:1067, 19:1091
effect of L-glutamate on dopamine release in cat 19:1081
head; topography of projections from the cerebral cortex in cat 19:113
posterior; projects to the substantia nigra pars reticulata in squirrel 19:159
presynaptic control of dopamine release in cat 19:1067, 19:1081, 19:1091

Caudate-putamen,
effect of bilateral lesion of the thalamostriatal pathway on dopamine receptor binding in rat 19:991
effect of electrical stimulation of the parafascicular nucleus on dopamine utilization in rat 19:965
effect of ibotenic acid injection of the parafascicular-intralaminar nuclei on dopamine utilization in rat 19:979
localization of M1 muscarinic receptors in rat 19:551
localization of SKF 38393 binding sites in rat CNS 19:125
ventral,
localization of CGRP binding sites in rat 19:1235

Cell aquisition,
role of thyroid hormone in rat dentate gyrus 19:1207

Central nervous system,
effect of 6-hydroxydopamine, reserpine & cold stress on NPY content in rat 19:1247

prenatal ontogeny of the GABAergic system in rat 19:465

Cephalic arteries,
VIP may be a transmitter of neurovasodilation in cat, in vitro 19:597

Cerebellar cortex,
localization of CGRP binding sites in rat 19:1235

Cerebellum,
embryonic axon forms & expression of synapsin I in mouse 19:1319
high levels of A1 compared to non-A1 adenosine binding sites in rat 19:535
localization of SKF 38393 binding sites in rat CNS 19:125
membrane structure at synapses in rat 19:857
quantification of glutamate immunoreactivity in cat 19:1045

Cerebral arteries,
origin & distribution of sympathetic & sensory innervation in rat 19:695

Cerebral cortex (see also relevant cortical areas),
colocalization of GABA & AChE in neurons in rat 19:763
comparison of epileptiform discharges evoked in the presence of GABA antagonists and in the absence of Mg^{2+} in rat 19:1161
localization of M1 muscarinic receptors in rat 19:551
localization of SKF 38393 binding sites in rat CNS 19:125
neuronal transport in cat 19:1187
projects to the periaqueductal grey in rabbit 19:927
topography of projections to the head of the caudate nucleus in cat 19:113

Cholecystokinin,
immunoreactive boutons make synaptic contact with hippocampal neurons that project to the nucleus accumbens, in rat 19:181
possible role in schizophrenia 19:181
synaptic connections, axonal & dendritic patterns of immunoreactive neurons in cat visual cortex 19:1133

Choline acetyltransferase,
amphiphilic & hydrophilic forms in cholinergic nerve endings of Torpedo & rat 19:275
in cerebral cortex & basal nucleus in advanced Alzheimer's disease 19:1279
changes in levels in medial septum & diagonal band after fimbria-fornix transection in rat 19:241
immunoreactivity; effect of ethylcholine mustard aziridinium ion in rat dorsal hippocampus 19:1197

Cholinergic drugs,
behavioural effects in mammals & man 19:1*

Cholinergic function,
& intellectual decline in Alzheimer's disease 19:1*

Cholinergic nerve endings,
amphiphilic & hydrophilic forms of ChAT in Torpedo & rat 19:275

Cholinergic neurons,
cortical depletion may be a secondary response to impaired hypothalamic endorphinergic control mechanisms in Alzheimer's disease 19:667
localization of galanin in hippocampal afferents in rat 19:223

Cholinergic pathways,
M2 muscarinic receptors may serve as a marker in rat brain 19:551

Chromaffin cells,
bovine; comparison of hydrolysis of chromogranin A by AChE & trypsin 19:289
bovine; monoamine oxidase activity & tyramine-induced catecholamine release compared with that of PC12 cells 19:1311
bovine; phosphorylation & dephosphorylation of proteins in response to stimulation 19:629

Chromogranin A,
bovine; comparison of hydrolysis by AChE & trypsin 19:289

Claustrum,
localization of kappa opioid receptors labelled by bremazocine in rat 19:839

Clonidine,
pre- & postsynaptic actions on myenteric neurons in guinea-pig 19:1303

Clutch cells,
are GABA-immunoreactive & terminate on spiny stellate cells in layer IVC of monkey striate cortex 19:741
localization of GABA in synapses, in cat visual cortex 19:1051

Cochlear nucleus,
localization of CGRP binding sites in rat 19:1235

Cold stress,
effect on the NPY content of the rat CNS 19:1247
effect on the NPY content of the rat peripheral nervous system 19:1251

Colliculus,
inferior,
localization of CGRP binding sites in rat 19:1235
superior,
head & body movements produced by electrical stimulation; effects of section of the crossed tectoreticulospinal pathway in rat 19:367
high levels of A1 compared to non-A1 adenosine binding sites in rat 19:535
localization of CGRP binding sites in rat 19:1235

localization of kappa opioid receptors labelled by bremazocine in rat 19:839
localization of SKF 38393 binding sites in rat CNS 19:125
role of the nigrotectal pathway in the generation of saccade-related responses in squirrel 19:159
spatial relationship of NADPH-diaphorase & AChE lattices in rat & mouse 19:381

Colocalization,
of AChE & LHRH in a population of terminal nerve neurons in hamster 19:719
of GABA & AChE in cortical neurons of rat 19:763

Corticostriatal neurons,
glutamatergic; role in presynaptic control of dopamine release in cat caudate nucleus 19:1081, 19:1091

Cribiform plate,
transection of terminal nerve & build up of LHRH indicates the direction of conduction in hamster 19:709

Cuneate nucleus,
afferent projection from the mammary glands in the lactating rat 19:495

Cuneiform nucleus,
projects to the periaqueductal grey in rabbit 19:927

Curvilinear wrist motion,
in an arbitrary plane in three-dimensional space; an algorithm 19:1393

N6-Cyclohexyladenosine,
distribution & characterization of binding to adenosine receptors in rat CNS 19:535

Degeneration,
in the basal & diagonal band nuclei in Alzheimer's disease 19:1265

Dementia,
& cholinergic function in Alzheimer's disease 19:1*

Dendrites,
changes in the basal & diagonal band nuclei in Alzheimer's disease 19:1265

Dense-cored vesicles,
large,
& non-synaptic exocytosis in rat trigeminal subnucleus caudalis 19:43

Dentate gyrus,
role of thyroid hormone in cell aquisition in rat 19:1207

Dephosphorylation,
of bovine chromaffin cell proteins in response to stimulation 19:629

Diagonal band,
a possible source of galanin-immunoreactive hippocampal fibres in rat 19:223
retrograde cell changes following fimbria-fornix transection in rat 19:241

Diagonal band nucleus,
dendritic changes in Alzheimer's disease 19:1265

Diazepam,
effect on local cerebral glucose use in rat 19:257

alpha-Difluoromethylornithine,
effects on behavioural development in rat 19:457

Digastric muscles,
relationship with masseter muscles in rat; a hierarchy of neural control of mastication 19:447

3,4-Dihydroxyphenylacetic acid,
synthesized by noradrenergic terminals; in vivo voltammetric monitoring in rat paraventricular nucleus 19:829

Dopamine,
correlation of increased release with a reduction in firing rate of dopamine cells in substantia nigra after application of GABA into the thalamic motor nuclei in cat 19:1091
effect of GABA application on release in the substantia nigra & caudate nucleus in cat 19:1067, 19:1091
effect of GABA application to thalamic motor neurons on firing rate of dopamine cells in the substantia nigra in cat 19:1067
effect of L-glutamate on release in the cat caudate nucleus 19:1081
increase in high affinity uptake sites in caudate-putamen following unilateral ibotenic acid lesion of thalamic nuclei in rat 19:991
levels in rat dorsal hippocampus; effect of ethylcholine mustard aziridinium ion 19:1197
presynaptic control of release in cat caudate nucleus 19:1067, 19:1081, 19:1091
quantification of the innervation in rat neostriatum; methodological aspects 19:427
utilization,
effect of electrical stimulation of parafascicular nucleus in caudate-putamen, nucleus accumbens, prefrontal cortex & substantia nigra in rat 19:965
effect of ibotenic acid injection of the parafascicular-intralaminar nuclei in caudate-putamen, nucleus accumbens & substantia nigra in rat 19:979

Dopamine receptors,
axonal transport in the nigrostriatal & striatonigral pathways of rat 19:139
comparison of distribution of D1 & D2 receptors in rat CNS 19:125

D1,
role in GABA release in the dorsal striatum of rat 19:1109
D2,
increase in number in caudate-putamen following bilateral lesion of the thalamostriatal pathway in rat 19:991
role in GABA release in the dorsal striatum of rat 19:1109
taurine & its anticonvulsant derivatives interfere with spiperone binding in rat striatum 19:1007

Dopaminergic agonists,
effect on GABA release in rat striatum 19:1101, 19:1109

Dopaminergic antagonists,
effect on GABA release in the dorsal striatum of rat 19:1109

Dorsal root ganglia,
afferent projection from the mammary glands in the lactating rat 19:495

Dynorphin,
displaces bremazocine binding at kappa opioid receptors in rat brain 19:839

Electric organ,
increase in the number of presynaptic large intramembrane particles during synaptic transmission at the Torpedo nerve-electroplaque junction 19:63

Eledoisin,
release is induced by capsaicin from guinea-pig spinal cord & ureter 19:313

Endopyriform nucleus,
localization of SKF 38393 binding sites in rat CNS 19:125

Endorphins,
impaired hypothalamic control mechanisms & Alzheimer's disease 19:667

Enkephalin,
[D-Ala^2,D-Leu^5],
injection into the nucleus accumbens induces antinociception, which is not affected by cinanserin, in rabbit 19:403
antibodies; effect on morphine-induced antinociception in rabbit 19:403
[Met],
content in rat adrenal gland; effect of reserpine 19:1011

Entopeduncular nucleus,
interactions with the pontine parabrachial region & the trigeminal system in cat 19:411
topography of projection from the striatum in cat 19:147

Entorhinal cortex,
electrical activity generated after stimulation of the lateral & basolateral amygdala of rat 19:573

Epilepsy,
synaptic connections of axo-axonic cells in human temporal cortex 19:1179

Epileptiform activity,
mediated by N-methylaspartate receptors in some, but not all, conditions in rat neocortical slices 19:1161

5'-N-Ethylcarboxamidoadenosine,
distribution & characterization of binding to adenosine receptors in rat CNS 19:535

Ethylcholine mustard aziridinium ion,
effects on cholinergic, serotonergic & catecholaminergic circuitry in rat dorsal hippocampus 19:1197

Excitatory amino acid antagonists,
effects on evoked field potentials in the olfactory bulb of rabbit & rat 19:267

Exocytosis,
non-synaptic; from large dense-cored vesicles in the rat trigeminal subnucleus caudalis 19:43

Fastigial nucleus,
modulation of medullary parasolitary neurons in dog 19:1293

Field potentials,
effects of excitatory amino acid antagonists in the olfactory bulb of rabbit & rat 19:267
generated in the subicular & entorhinal cortices of rat after stimulation of the lateral & basolateral amygdala 19:573

Fimbria-fornix,
retrograde cell changes in medial septum & diagonal band following transection in rat 19:241

Firing frequency,
ionic mechanisms controlling repetitive firing in rat neonatal spinal motoneurons 19:669

Forebrain,
ventral,
transection of terminal nerve & build up of LHRH indicates the direction of conduction in hamster 19:709

Forelimb muscle,
excitatory input to the parasolitary nucleus in dog 19:1293

Fornix,
projection to thermoresponsive neurons in the ventral septal area in rat 19:795

Freeze-fracture technique,
& membrane structure at synapses in hippocampus & cerebellum of rat 19:857

Frequency-dependent decay,
of calcium spikes in cultured mouse spinal cord neurons 19:1335

Fucose,
-containing neutral glycolipids & gangliosides in PC12 cells 19:647

GABAergic neurons,
may be controlled by inhibitory GABAergic synapses in the guinea-pig hippocampus 19:193

GABAergic system,
prenatal ontogeny in the rat brain 19:465

Galanin,
distribution in hippocampal afferents, with reference to cholinergic & noradrenergic inputs in rat 19:223

Gangliosides,
fucosylated; effect of NGF on synthesis in PC12 cells 19:647

Geniculate nucleus,
see under subdivisions, e.g. Lateral geniculate nucleus

Gigantocellularis nucleus,
pars alpha,
ascending projections in rat 19:873

Globus pallidus,
localization of SKF 38393 binding sites in rat CNS 19:125
topography of projection from the striatum in cat 19:147

Glomeruli,
olfactory; principles of formation in vertebrates 19:1025*

Glomus cells,
are in contact with two classes of afferent fibres in the carotid body of cat 19:581

Glucose,
utilization; effects of diazepam compared with those of GABA agonists in rat CNS 19:257

Glutamate,
effect on dopamine release in the cat caudate nucleus 19:1081
quantification of immunoreactivity in cat cerebellum 19:1045

Glutamate decarboxylase,
immunoreactive neurons synapse with oxytocin & vasopressin neurons in rat supraoptic nucleus 19:207
immunoreactive terminals make synaptic contact with GAD-immunoreactive neurons in guinea-pig hippocampus 19:193

Glycine,
tritiated; incorporated into proteins; neuronal transport in cat cerebral cortex 19:1187

Glycolipids,
fucosylated; effect of NGF on synthesis in PC12 cells 19:647

Golgi cells,
quantification of glutamate immunoreactivity in cat cerebellum 19:1045

Gracile nucleus,
afferent projection from the mammary glands in the lactating rat 19:495

Granule cells,
quantification of glutamate immunoreactivity in cat cerebellum 19:1045
role of thyroid hormone in morphogenesis in rat hippocampus 19:1217

Habenula,
effect of radiofrequency lesion on dopamine receptor binding in the caudate-putamen in rat 19:991
localization of SKF 38393 binding sites in rat CNS 19:125

Halothane anaesthesia,
effect on dopamine utilization in caudate-putamen, nucleus accumbens, prefrontal cortex & substantia nigra in rat 19:965

Hindlimb nerves,
laminar distribution & somatotopic organization of primary afferent fibres to the dorsal horn in rat 19:297

Hippocampal slow waves,
reticular elicitation; effects of anxiolytic drugs in rat 19:899

Hippocampus,
comparison of distribution of opioid receptors in guinea-pig & rat 19:847
distribution of galanin, with reference to cholinergic & noradrenergic inputs in rat 19:223
dorsal,
effects of ethylcholine mustard aziridinium ion on cholinergic, serotonergic & catecholaminergic circuitry in rat 19:1197
high levels of A1 compared to non-A1 adenosine binding sites in rat 19:535
lesion-induced transneuronal plasticity in the adult rat 19:1227
localization of M1 muscarinic receptors in rat 19:551
localization of SKF 38393 binding sites in rat CNS 19:125
membrane structure at synapses in rat 19:857
neurons that project to the nucleus accumbens receive input from cholecystokinin-immunoreactive boutons, in rat 19:181
non-pyramidal neurons; postsynaptic GABAergic inhibition in guinea-pig 19:193
role of thyroid hormone in morphogenesis of granule & pyramidal cells in rat 19:1217

Histamine,
may coexist with monoamine oxidase in the posterior hypothalamus of rat 19:905

Horseradish peroxidase,
activity at consecutive nodes of Ranvier in the nerve to the medial gastrocnemius muscle after intramuscular administration in cat 19:1349
transganglionic transport; study of hindlimb nerve afferents in dorsal horn of rat 19:297

Hydrophilic form of ChAT,
in cholinergic nerve endings of Torpedo & rat 19:275

6-Hydroxydopamine,
effect on the NPY content of the rat CNS 19:1247

5-Hydroxytryptamine,
immunoreactivity; effect of ethylcholine mustard aziridinium ion in rat dorsal hippocampus 19:1197
injection into the nucleus accumbens induces antinociception, which is blocked by naloxone in rabbit 19:403
levels in rat dorsal hippocampus; effect of ethylcholine mustard aziridinium ion 19:1197

Hypoglossal complex,
localization of CGRP binding sites in rat 19:1235

Hypothalamic nuclei,
arcuate,
localization of CGRP binding sites in rat 19:1235
medial mammillary,
localization of CGRP binding sites in rat 19:1235
medial preoptic,
localization of kappa opioid receptors labelled by bremazocine in rat 19:839
paraventricular,
in vivo voltammetric monitoring of noradrenaline release & catecholamine metabolism in rat 19:829

projection to thermoresponsive neurons in the ventral septal area in rat 19:795
suprachiasmatic,
localization of kappa opioid receptors labelled by bremazocine in rat 19:839
supraoptic,
GABAergic innervation of oxytocin- & vasopressin-secreting neurons in rat 19:207

Hypothalamus,
impaired endorphinergic control mechanisms & Alzheimer's disease 19:667
localization of SKF 38393 binding sites in rat CNS 19:125
posterior,
monoamine oxidase may coexist with histamine in rat 19:905
projections to the posterior pituitary in rat 19:803
projects to the periaqueductal grey in rabbit 19:927

Ibotenic acid,
injection into the parafascicular-intralaminar nuclei; effect on dopamine utilization in the caudate-putamen, substantia nigra & nucleus accumbens in rat 19:979

Immune response,
to allogeneic & xenogeneic neuronal tissue transplanted to the third ventricle of rodents 19:685

Immunogold labelling,
demonstration of GABA in synapses of basket & clutch cells in cat visual cortex 19:1051
use in quantification of glutamate immunoreactivity in cat cerebellum 19:1045

Infundibular recess,
a projection route from the hypothalamic area to the posterior pituitary in rat 19:803

Insulin,
effect on the content of NPY in the rat adrenal gland 19:1011

Intermediolateral cell column,
cellular localization of substance P receptors in rat 19:523

Inward rectification,
instantaneous; in the goldfish Mauthner cell 19:1037

Lateral geniculate nucleus,
afferents form synapses with spiny stellate cells in layer IVC of monkey striate cortex 19:741
dorsal,
neuronal composition using GABA immunocytochemistry in rat 19:101

alpha-Latrotoxin,
effect on neurotransmitter release from rat & locust synaptosomes 19:55

Locus coeruleus,
actions of acetylcholine & nicotine on neurons in vitro in rat 19:565
a possible source of galanin-immunoreactive hippocampal fibres in rat 19:223

Luteinizing hormone-releasing hormone,
accumulation in the terminal nerve after transection indicates the direction of conduction in hamster 19:709
localization in terminal nerve neurons of hamster 19:719

Magnesium,
absence evokes epileptiform discharges; comparison with those evoked by GABA antagonists in rat neocortical slices 19:1161

Mammary glands,
afferent projections to the spinal cord in the lactating rat 19:495

Mammillary body,
effect of diazepam on glucose utilization in rat 19:257

Masseter muscles,
relationship with digastric muscles in rat; a hierarchy of neural control of mastication 19:447

Mastication,
hierarchy of neural control in rat 19:447

Mauthner cells,
instantaneous inward rectification in the goldfish 19:1037

Medial forebrain bundle,
a projection route from the hypothalamic area to the posterior pituitary in rat 19:803

Medial gastrocnemius muscle nerve,
peroxidase activity at consecutive nodes of Ranvier after intramuscular HRP in cat 19:1349

Medial geniculate nucleus,
localization of non-A1 adenosine binding sites in rat 19:535

Median eminence,
localization of CGRP binding sites in rat 19:1235

Membranes,
structure at synapses in hippocampus & cerebellum in rat 19:857

N-Methylaspartate receptors,
may be involved in the granule to mitral/tufted cell inhibition in olfactory bulb in rabbit & rat 19:267
mediate epileptiform activity evoked in some, but not all, conditions in rat neocortical slices 19:1161

Milk ejection reflex,
electrophysiological responses of spinal neurons to nipple stimulation in the rat 19:511

Monoamine oxidase,
contrasting activity in PC12 & bovine chromaffin cells 19:1311
distribution in neurons in the rat brain 19:905
may coexist with histamine in the posterior hypothalamus of rat 19:905

Morphine,
antinociceptive effect on spinothalamic tract cells & other dorsal horn neurons in rat 19:393
induction of antinociception; effects of naloxone, enkephalin antibodies & D-phenylalanine administered in the rabbit nucleus accumbens 19:403

Morphogenesis,
of granule & pyramidal cells in rat hippocampus; role of thyroid hormone 19:1217

Morphometry,
of myelinated axons in spinal cord injury in cat 19:321

Mossy fibres,
quantification of glutamate immunoreactivity in cat cerebellum 19:1045

Motor cortex,
functional organization of projections from the thalamus in rat 19:81

Motor responses,
to electrical stimulation of the tectum in the perch 19:1381

Muscarinic agonists,
induce catecholamine secretion in the chicken adrenal gland 19:357

MY-103,
interferes with spiperone binding in rat striatum 19:1007

Myelinated axons,
morphometric analysis in spinal cord injury in cat 19:321

Myenteric neurons,
pre- & postsynaptic actions of noradrenaline & clonidine in guinea-pig 19:1303

NADPH-diaphorase,
lattice in superior colliculus; spatial relationship with AChE lattice in rat & mouse 19:381

Naloxone,
action on antinociceptive effect of morphine on spinothalamic tract cells & other dorsal horn neurons in rat 19:393
effect on morphine-induced antinociception in rabbit 19:403

Nasal cavity,
projection via the terminal nerve to the ventral forebrain in hamster 19:709

Nerve growth factor,
effect on the expression of neutral glycosphingolipids & gangliosides in PC12 cells 19:647

Neural grafts,
transplanted to the third ventricle of rodents; effect of degree of genetic disparity 19:685

Neuritic plaques,
in cerebral cortex in advanced Alzheimer's disease 19:1279

Neurogenic vasodilation,
VIP may be a transmitter in cat cephalic arteries in vitro 19:597

Neurohypophysial tract,
a projection route from the hypothalamic area to the posterior pituitary in rat 19:803

Neurokinin A,
release is induced by capsaicin from

guinea-pig spinal cord & ureter 19:313

Neuronal transport,
in cat cerebral cortex 19:1187

Neuropeptide Y,
characterization & distribution in the adrenal glands of several mammalian species 19:1011
content in rat adrenal gland; effect of insulin & reserpine 19:1011
effect of 6-hydroxydopamine, reserpine & cold stress on levels in rat CNS 19:1247
effect of reserpine, phenoxybenzamine & cold stress on levels in rat peripheral nervous system 19:1251

Neuropeptides,
may be released by non-synaptic exocytosis from large dense-cored vesicles in rat trigeminal subnucleus caudalis 19:43

Neurotransmitter release,
is enhanced by a phorbol ester in cultured rat brain neurons 19:1255
from rat & locust synaptosomes; effects of black widow spider toxins 19:55

Nicotine,
action on rat locus coeruleus neurons in vitro 19:565

Nicotinic fast EPSPs,
effects of noradrenaline & clonidine in myenteric neurons in guinea-pig 19:1303

Nigrostriatal pathway,
axonal transport of dopamine & opioid receptors in rat 19:139
effect of sectioning on action of GABA applied to thalamic motor nuclei on dopamine release in the caudate nucleus in cat 19:1067

Nigrotectal pathway,
location & morphology of source neurons in squirrel 19:159

Nipple stimulation,
electrophysiological responses of spinal neurons in the lactating rat 19:511

Nodes of Ranvier,
consecutive; peroxidase activity in the nerve to the medial gastrocnemius muscle after intramuscular HRP in cat 19:1349

Non-N-methyl-D-aspartate receptors,
may be involved in mitral/tufted to granule cell excitation in the olfactory bulb in rabbit & rat 19:267

Non-pyramidal neurons,
show postsynaptic GABAergic inhibition in guinea-pig hippocampus 19:193

Non-synaptic areas,
exocytosis from large dense-cored vesicles in rat trigeminal subnucleus caudalis 19:43

Noradrenaline,
in vivo voltammetric monitoring of release in the rat paraventricular nucleus 19:829
levels in rat dorsal hippocampus; effect of ethylcholine mustard aziridinium ion 19:1197
pre- & postsynaptic actions on myenteric neurons in guinea-pig 19:1303
release; relationship with acetylcholine-induced phosphorylation & dephosphorylation of bovine chromaffin cell proteins 19:629

Noradrenergic A1 area,
ascending projections in rat 19:873

Noradrenergic neurons,
localization of galanin in hippocampal afferents in rat 19:223

Olfactory bulb,
effects of excitatory amino acid antagonists on evoked field potentials in rabbit & rat 19:267
principles of formation of glomeruli in vertebrates 19:1025*
transection of terminal nerve & build up of LHRH indicates the direction of conduction in hamster 19:709

Olfactory cortex,
primary,
localization of SKF 38393 binding sites in rat CNS 19:125

Olfactory nucleus,
anterior,
localization of SKF 38393 binding sites in rat CNS 19:125

Olfactory tubercle,
localization of M1 muscarinic receptors in rat 19:551
localization of non-A1 adenosine binding sites in rat 19:535
localization of SKF 38393 binding sites in rat CNS 19:125

Olivary nuclei,
inferior,
localization of CGRP binding sites in rat 19:1235

Ontogeny,
of CGRP immunoreactivity in the rat respiratory tract 19:605
prenatal; of the GABAergic system in rat brain 19:465
of sensorimotor behaviour; effect of alpha-difluoromethylornithine in rat 19:457

Opioid receptors,
axonal transport in the nigrostriatal & striatonigral pathways of rat 19:139
comparison of distribution in guinea-pig & rat hippocampus 19:847
kappa,
distribution in rat brain 19:839

Optic tract,
retinal topography in the adult goldfish 19:1363

Organum vasculosum of lamina terminalis,
localization of CGRP binding sites in rat 19:1235

Orientation or approach movements,
produced by stimulation of the superior colliculus; effects of section of the crossed tectoreticulospinal pathway in rat 19:367

Ornithine decarboxylase,
role in behavioural development in rat 19:457

Oxytocin,
neurons receive a rich GABAergic innervation in rat supraoptic nucleus 19:207

Parabigeminal nucleus,
projects to the periaqueductal grey in rabbit 19:927

Parallel fibres,
quantification of glutamate immunoreactivity in cat cerebellum 19:1045

Parasolitary nucleus,
fastigial nucleus modulation of neurons in dog 19:1293

Partial spikes,
characteristics in spinal motoneurons of neonatal rats 19:669

Parvocellular reticular nucleus,
ascending projections in rat 19:873

PC12 cells,
effect of NGF on the expression of neutral glycosphingolipids & gangliosides 19:647
monoamine oxidase activity & tyramine-induced catecholamine release compared with that of bovine chromaffin cells 19:1311

Periaqueductal grey,
afferent projections in rabbit 19:927
injection of morphine induces antinociception; effects of naloxone, enkephalin antibodies & D-phenylalanine administered in the rabbit nucleus accumbens 19:403

Peripheral nervous system,
effect of reserpine, phenoxybenzamine & cold stress on NPY content in rat 19:1251

Phenoxybenzamine,
effect on the NPY content of the rat peripheral nervous system 19:1251

D-Phenylalanine,
effect on morphine-induced antinociception in rabbit 19:403

R-Phenylisopropyladenosine,
effect on binding of 5'-N-ethylcarboxamidoadenosine to adenosine receptors in rat CNS 19:535

Phorbol ester,
enhances calcium influx, neurotransmitter release & protein phosphorylation in cultured rat brain neurons 19:1255

Phosphorylation,
of bovine chromaffin cell proteins in response to stimulation 19:629

Pineal phototransducers,
distribution of S-antigen in vertebrates 19:657

Pituitary,
posterior,
projections from the hypothalamus & adjacent areas in rat 19:803

PK 26124,
effect on the change in dopamine release in the caudate nucleus evoked by application of GABA into the thalamic motor nuclei, in cat 19:1091
effect on the change in dopamine release evoked by glutamate in the cat caudate nucleus 19:1081

Polyamine,
role in behavioural development in rat 19:457

Pontine nuclei,
localization of CGRP binding sites in rat 19:1235

Pontine parabrachial region,
interactions with basal ganglia & the trigeminal system in cat 19:411

Potassium,
effect of ionic composition of the superfusion medium on GABA release in the rat striatum 19:1101
effect on phosphorylation & dephosphorylation of bovine chromaffin cell proteins 19:629
role in firing properties of rat neonatal spinal motoneurons 19:669
role in instantaneous inward rectification in the golfish Mauthner cell 19:1037

Potassium channels,
Ca^{2+}-activated; in cultured astrocytes from rat brain 19:29

Prefrontal cortex,
effect of electrical stimulation of the parafascicular nucleus on dopamine utilization in rat 19:965

Preganglionic sympathetic neurons,
localization of substance P receptors in the intermediolateral cell column in rat 19:523

Presynaptic large intramembrane particles,
increase in number during synaptic transmission at the Torpedo nerve-electroplaque junction 19:63

Primary afferent neurons,
capsaicin evokes release of tachykinins in guinea-pig spinal cord & ureter 19:313
from hindlimb nerves to the dorsal horn; laminar distribution & somatotopic organization in rat 19:297

N,n-Propylnorapomorphine,
autoradiographic distribution of binding sites in rat CNS 19:125

Protein phosphorylation,
is enhanced by a phorbol ester in cultured rat brain neurons 19:1255

Purkinje cells,
quantification of glutamate immunoreactivity in cat cerebellum 19:1045

Pyramidal cells,
comparison of epileptiform discharges evoked in the presence of GABA antagonists and in the absence of Mg^{2+} in rat cerebral cortex 19:1161
hippocampal; projecting to the nucleus accumbens; receive input from cholecystokinin-immunoreactive boutons, in rat 19:181
postsynaptic targets of axo-axonic cells in human epileptic temporal cortex 19:1179
role of thyroid hormone in morphogenesis in rat hippocampus 19:1217

Raphe magnus,
projects to the periaqueductal grey in rabbit 19:927

Reactive synaptogenesis,
in adult rat hippocampus after entorhinal lesion 19:1227

Regeneration,
in the basal & diagonal band nuclei in Alzheimer's disease 19:1265

Reserpine,
effect on the content of NPY & [Met]-enkephalin in the rat adrenal gland 19:1011
effect on the NPY content of the rat CNS 19:1247
effect on the NPY content of the rat peripheral nervous system 19:1251

Respiratory tract,
occurrence, distribution & ontogeny of CGRP immunoreactivity in rat 19:605

Reticular formation,
medullary,
ascending projections in rat 19:873
midbrain,
elicitation of hippocampal slow waves; effects of anxiolytic drugs in rat 19:899
projects to the periaqueductal grey in rabbit 19:927

Reticular nuclei,
ventral,
ascending projections in rat 19:873

Retinal axons,
arrangement in optic tract of adult goldfish 19:1363

Retinal photoreceptors,
distribution of S-antigen in vertebrates 19:657

Retinotopic map,
localized stimulation of the perch tectum produces some motor responses inconsistent with the map 19:1381

S-antigen,
distribution in the pineal complex of vertebrates 19:657

Schizophrenia,
& possible role of cholecystokinin 19:181

Sensorimotor behaviour,
ontogeny; effects of alpha-difluoromethylornithine in rat 19:457

Sensorimotor cortex,
effect of lesion on the change in dopamine release in the caudate nucleus produced by application of GABA into the thalamic motor nuclei in cat 19:1091

Septal area,
medial,
behavioural effects of lesions 19:1*
ventral,
thermoresponsive neurons; projections from potential arginine vasopressin sources in rat 19:795

Septum,
lateral,
localization of SKF 38393 binding sites in rat CNS 19:125
medial,
retrograde cell changes following fimbria-fornix transection in rat 19:241
a possible source of galanin-immunoreactive hippocampal fibres in rat 19:223

Serotonin,
see 5-Hydroxytryptamine

SKF 38393,
autoradiographic distribution of binding sites in the rat CNS 19:125

Sodium,
role in firing properties of rat neonatal spinal motoneurons 19:669

Solitary tract, nucleus,
localization of CGRP binding sites in rat 19:1235

Somatic motor neurons,
localization of substance P receptors in the ventral horn in rat 19:523

Somatotopy,
of primary afferent fibres from hindlimb nerves in the dorsal horn of rat 19:297

Spinal cord,
capsaicin evokes release of tachykinins in guinea-pig 19:313
comparison of the distribution of D1 & D2 dopamine receptors in rat 19:125
cultured neurons; frequency-dependent decay of calcium spikes in mouse 19:1335
dorsal horn,
afferent projection from the mammary glands in the lactating rat 19:495
antinociceptive effect of morphine on neurons in rat 19:393
cellular localization of substance P receptors in rat 19:523
laminar distribution & somatotopic organization of primary afferent fibres from hindlimb nerves in rat 19:297
electrophysiological responses of neurons to nipple stimulation in the lactating rat 19:511
injury; morphometric analysis of myelinated axons in cat 19:321
localization of SKF 38393 binding sites in rat CNS 19:125
ventral horn,
cellular localization of substance P receptors in rat 19:523

Spinal ganglia,
innervation of cerebral arteries in rat 19:695

Spinal motoneurons,
ionic mechanisms underlying firing properties in neonatal rats 19:669

Spinothalamic tract,
antinociceptive effect of morphine on neurons in rat 19:393

Spiny stellate cells,
synaptic relationship with GABA cells & lateral geniculate nucleus afferents in layer IVC of monkey striate cortex 19:741

Spiperone,
binding in striatum is interfered with by taurine & its anticonvulsant derivatives in rat 19:1007

Splanchnic nerve,
possible role in the turnover of adrenal NPY in rat 19:1011

Stria terminalis,
bed nucleus,
projection to thermoresponsive neurons in the ventral septal area in rat 19:795

Striate cortex,
synaptic relationships of GABA cells, spiny stellate cells & lateral geniculate nucleus afferents in layer IVC of monkey 19:741

Striatonigral fibres,
localization of nigral D1, but not D2, dopamine receptors in rat 19:125

Striatonigral pathway,
axonal transport of dopamine & opioid receptors in rat 19:139

Striatum,
characterization & topographical heterogeneity of GABA release in rat 19:1101
localization of kappa opioid receptors labelled by bremazocine in rat 19:839
localization of non-A1 adenosine binding sites in rat 19:535
opposing roles of D1 & D2 dopamine receptors in GABA release in rat 19:1109
quantification of the dopamine innervation in rat; methodological aspects 19:427
taurine & its anticonvulsant derivatives interfere with spiperone binding in rat 19:1007
topography of projections to the globus pallidus, entopeduncular nucleus & substantia nigra in cat 19:147
visual corticorecipient region; topographical projection to the substantia nigra in rat 19:1119

Subicular cortex,
electrical activity generated after stimulation of the lateral & basolateral amygdala of rat 19:573

Substance P,
characteristics in bullfrog autonomic nerve terminals in cardiac ganglion 19:343
does not appear to be a transmitter of neuro-vasodilation in cephalic arteries of cat, in vitro 19:597
levels in cephalic arteries of cat 19:597
release is induced by capsaicin from guinea-pig spinal cord & ureter 19:313

Substance P receptors,
cellular localization in rat spinal cord 19:523

Substantia gelatinosa,
afferent projection from the mammary glands in the lactating rat 19:495

Substantia nigra,
effect of electrical stimulation of the parafascicular nucleus on dopamine utilization in rat 19:965
effect of GABA application to thalamic motor nuclei on firing rate of dopamine cells & dopamine release in cat 19:1067, 19:1091
effect of ibotenic acid injection of the parafascicular-intralaminar nuclei on dopamine utilization in rat 19:979
interactions with the pontine parabrachial region & the trigeminal system in cat 19:411

localization of SKF 38393 binding sites in rat CNS 19:125
pars lateralis,
source of neurons of the nigrotectal pathway in squirrel 19:159
pars reticulata,
source of neurons of the nigrotectal pathway in squirrel 19:159
projects to the periaqueductal grey in rabbit 19:927
relationship of efferent projections with the visual cortico-striato-nigral pathway in rat 19:1119
topography of projection from the striatum in cat 19:147

Subthalamic nucleus,
localization of SKF 38393 binding sites in rat CNS 19:125

Suckling,
electrophysiological responses of spinal neurons in the lactating rat 19:511

Superior cervical ganglion,
innervation of cerebral arteries in rat 19:695

Synapses,
localization of GABA, in basket & clutch cells in cat visual cortex 19:1051
membrane structure in hippocampus & cerebellum in rat 19:857

Synapsin I,
time-course of expression in mouse cerebellum 19:1319

Synaptic connections,
of axo-axonic cells in human epileptic temporal cortex 19:1179
of cholecystokinin-immunoreactive neurons in cat visual cortex 19:1133

Synaptic relationships,
between GABA cells, spiny stellate cells & lateral geniculate nucleus afferents in layer IVC of monkey striate cortex 19:741

Synaptic transmission,
& increase in the number of presynaptic large intramembrane particles at the Torpedo nerve-electroplaque junction 19:63

Synaptogenesis,
axon development & expression of synapsin I in mouse cerebellum 19:1319

Synaptosomes,
from rat striatum & locust head & thoracic ganglia; effects of black widow spider toxins on neurotransmitter release 19:55

Tachykinins,
release is induced by capsaicin from guinea-pig spinal cord & ureter 19:313

Taltrimide,
interferes with spiperone binding in rat striatum 19:1007

Taurine,
interferes with spiperone binding in rat striatum 19:1007

Tectoreticulospinal pathway,
crossed; role in orienting & approach movements produced by stimulation of the superior colliculus in rat 19:367

Tectum,
motor responses to electrical stimulation in the perch 19:1381

Tegmental area,
ventral,
localization of SKF 38393 binding sites in rat CNS 19:125

Temporal cortex,
synaptic connections of axo-axonic cells in a human with epilepsy 19:1179

Terminal nerve,
AChE & LHRH localization distinguish two populations of neurons in hamster 19:719
projects centrally in the hamster 19:709

Tetraethylammonium,
effect on Ca^{2+}-activated K^+ channels in cultured astrocytes from rat brain 19:29

Tetrodotoxin,
effect on the change in dopamine release evoked by glutamate in the cat caudate nucleus 19:1081
effect on GABA release in rat striatum 19:1101

Thalamic nuclei,
motor,
effect of GABA application on dopamine release in the substantia nigra & caudate nucleus in cat 19:1067, 19:1091
effect of GABA application on firing rate of dopamine cells in the substantia nigra in cat 19:1067
parafascicular,
effect of electrical stimulation on dopamine utilization in caudate-putamen, nucleus accumbens, prefrontal cortex & substantia nigra in rat 19:965
parafascicular-intralaminar,
effect of ibotenic acid injection on dopamine utilization in the caudate-putamen, substantia nigra & nucleus accumbens in rat 19:979
effect of ibotenic acid lesions on dopamine receptor binding in the caudate-putamen in rat 19:991
effect of radiofrequency lesions on dopamine receptor binding in the caudate-putamen in rat 19:991

Thalamo-cortico-striatal neuronal loop,
& presynaptic control of dopamine release in the cat caudate nucleus 19:1091

Thalamostriatal pathway,
effect of bilateral lesion on dopamine receptor binding in the caudate-putamen in rat 19:991

Thalamus,
functional organization of afferents to the motor cortex in rat 19:81
localization of non-Al adenosine binding sites in rat 19:535
localization of SKF 38393 binding sites in rat CNS 19:125

Thermoresponsive neurons,
in the ventral septal area; projections from putative arginine vasopressin sources in rat 19:795

Third ventricle,
is an immunologically privileged site in rodents, but the privilege is not absolute 19:685

Thyroid hormone,
role in cell aquisition in the rat dentate gyrus 19:1207
role in morphogenesis of granule & pyramidal cells in rat hippocampus 19:1217

Topography,
of afferent projections to the periaqueductal grey in rabbit 19:927
of the corticocaudate projections in cat 19:113
of monoamine oxidase-containing neurons in rat brain 19:905
of regulation of GABA release within the rat striatum 19:1101
retinal; in the optic tract of adult goldfish 19:1363
of striatal projections to the globus pallidus, entopeduncular nucleus & substantia nigra in cat 19:147
of thalamic afferents to the motor cortex in rat 19:81
of the visual corticostriatal pathway & the striatonigral pathway in rat 19:1119

Transneuronal plasticity,
in adult rat hippocampus after entorhinal lesion 19:1227

Transplantation,
of neuronal tissue into the third ventricle of rodents; effect of degree of genetic disparity 19:685

Trifluoperazine,
effect on stimulation-induced phosphorylation of bovine chromaffin cell proteins 19:629

Trigeminal ganglion,
innervation of cerebral arteries in rat 19:695

Trigeminal nerve, nuclei,
caudal,
& non-synaptic exocytosis from large dense-cored vesicles in rat 19:43

Trigeminal system,
interactions with basal ganglia & the pontine parabrachial region in cat 19:411

Trypsin,
comparison with AChE hydrolysis of bovine chromogranin A 19:289

Tyramine-induced catecholamine release,
comparison in PC12 & bovine chromaffin cells 19:1311

Tyrosine hydroxylase,
immunoreactivity; effect of ethylcholine mustard aziridinium ion in rat dorsal hippocampus 19:1197

U-50488H,
displaces bremazocine binding at kappa opioid receptors in rat brain 19:839

Ureter,
capsaicin evokes release of tachykinins in guinea-pig 19:313

Vagus nerve,
ligation; effect on distribution of CGRP immunoreactivity in the rat respiratory tract 19:605

Vasoactive intestinal polypeptide,
levels in cephalic arteries of cat 19:597
may be a transmitter of neuro-vasodilation in cephalic arteries of cat, *in vitro* 19:597

Vasopressin,
arginine,
putative transmitter in projections onto thermoresponsive neurons in the ventral septal area in rat 19:795
neurons receive a rich GABAergic innervation in rat supraoptic nucleus 19:207

Vestibular nucleus,
localization of CGRP binding sites in rat 19:1235

Visual cortex,
localization of GABA in synapses of basket cells & clutch cells in cat 19:1051
synaptic connections, axonal & dendritic patterns of cholecystokinin-immunoreactive neurons in cat 19:1133
topographical projection to the striatum in rat 19:1119

Visual cortico-striato-nigral pathway,
anatomical organization in rat 19:1119

Voltammetry,
in vivo monitoring of noradrenaline release & catecholamine metabolism in the rat paraventricular nucleus 19:829

Xenogeneic grafts,
fate of neuronal tissue transplanted to the third ventricle of rodents 19:685

Zona incerta,
projects to the periaqueductal grey in rabbit 19:927